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A Study of the Use of the Botel Word Opposites Test to Determine the Instructional Reading Levels of Selected Educationally Disadvantaged Elementary Pupils.

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A STUDY OF THE USE OF THE BOTEL WORD OPPOSITES TEST TO DETERMINE THE INSTRUCTIONAL READING LEVELS OF SELECTED EDUCATIONALLY DISADVANTAGED ELEMENTARY PUPILS

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ABSTRACT

The purpose of this study was to validate a concise classroom instrument, easy to administer and score, which would indicate appropriate levels for instruction in reading for educationally disadvantaged elementary pupils. The instructional levels as identified by the Word Opposites Test of the Botel Reading Inventory, Form B, were compared to the reading composite scores of the Science Research Associates Assessment Survey, Achievement Series, Forms E/Primary II and F/Blue Level, and the instructional levels as identified by the Standard Reading Inventory, Form A. The Pearson product-moment method of correlation was calculated to identify the degrees of agreement among the three test scores for: third grade and sixth grade; male and female for each grade level and for the grade levels combined; overage pupils and pupils of appropriate ages for each grade level and for the grade levels combined; and upper half and lower half, as determined by the Science Research Associates Assessment Survey, Achievement Series median, for each grade level and for the grade levels combined. Tests of significance at the .05 and .01 levels of confidence were applied.

The study was confined to fifty-one third grade pupils and seventy-four sixth grade pupils in a rural Louisiana parish school. These pupils were identified as educationally disadvantaged on the bases of their residence in an economically deprived area and their composite scores, which were one or more years below actual grade

placement, on the Science Research Associates Assessment Survey, Achievement Series. Ninety percent of the population for the study was black.

The following indications of agreement among the test scores were identified:

1. All correlation coefficients for the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory were positive and significant at the .01 level of confidence. The overall correlation coefficient was 0.916 and the range was 0.374 to 0.951.

2. The Science Research Associates Assessment Survey, Achievement Series reading scores and the Standard Reading Inventory scores yielded correlations ranging from -0.310 to 0.962. The 0.962 correlation met the test of significance at the .01 level of confidence. The overall correlation for grades three and six was 0.843, which was significant at the .01 level of confidence.

3. The overall correlation for the Science Research Associates Assessment Survey, Achievement Series reading scores and the Word Opposites Test of the Botel Reading Inventory was 0.822, which was significant at the .01 level of confidence. The correlations ranged from -0.322 to 0.948. The 0.948 correlation was significant at the .01 level of confidence.

When factors of grade placement, sex, age, and level were considered for the purposes of correlation, the following generalizations were made:

A. Correlations made for third grade were generally the lowest.

B. Correlations for males were generally higher than those for females.

C. Highest correlations for the three combinations of tests were for males whose reading test scores were above the Science Research Associates Assessment Survey, Achievement Series median scores of the sample at their respective grade level.

D. Correlations for scores which were above the Science Research Associates Assessment Survey, Achievement Series median scores of the sample were generally higher than correlations for scores which were below the median.

E. Neither correlations for overage pupils nor for pupils of appropriate ages were consistently high or low.

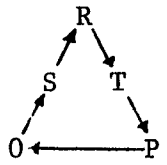
Within the sample of educationally disadvantaged elementary pupils, the Word Opposites Test of the Botel Reading Inventory appeared to be a valid instrument for identifying instructional reading levels, particularly with upper elementary pupils. Slightly higher indications of test agreements were noted for boys and for pupils who were not placed in the lowest extreme of their class on the basis of scores from standardized tests in reading.

Chapter 1

INTRODUCTION

One of the basic principles underlying instruction in reading is the determination of where a pupil is able to properly function. Instruction in reading is then initiated at, or slightly below that point, in order to help the pupil progress as far and as fast as he can toward his potential ability. Such an initial determination may be broadly identified as diagnosis; therefore the implication can be made that diagnosis is essential to good teaching.

In the field of reading, a model developed by Strang (1965: 70, 71) helped clarify the role of diagnosis in instructional situations.



O = the child or children being taught.

S = the learning situations in which these children are placed.

R = the responses of these children to the learning situation.

T = the impressions or traces from the response left on the nervous system.

P = the perceptions which develop as a result of many such experiences.

This cyclic nature of the learning process tends to illustrate that a child and his perceptions cannot be separated. For the

purpose of helping the teacher in the selection of the learning situation, S, diagnosis can take place at the 0 level, prior to instruction. It can also take place at the response level, R. Here the teacher can assess the effectiveness of the learning situation which was developed. This study explored initial classroom diagnostic procedures which give the teacher direction toward the learning situation for each child.

Classroom teachers can profit from development of skills in diagnostic testing, interpretation of results, and instituting instructional adjustments. The failure of teachers to do so may be attributed to two myths which have developed about diagnosis: (1) diagnosis requires the use of specially designed tests which yield results too complicated for practical application; and (2) diagnosis requires highly trained, specialized test administrators. Teachers should realize that diagnostic teaching is not reserved for those with specialized training in the use of sophisticated materials. Diagnosis at the teaching level is a pressing and relevant need.

The diagnostic process is dependent upon the educator's ability to use the diagnostic tools at his disposal and upon his ability to interpret and utilize diagnostic data in classroom practice. A person conducting a diagnosis should use only the available data which he is competent to interpret.

The major sources for classroom diagnosis include school records, observations of the child in his classroom reading activities, and available test scores. Considerations for the purpose of this research involve test scores.

Many teachers use test scores to plan future instruction and to group children. Whether or not test scores are useful depends upon the types of instruments used and subsequent practical interpretations of the results. Three basic types of testing instruments are available for classroom diagnosis: standardized tests, formal inventories, and teacher-made informal inventories. Reading specialists express disagreement concerning the significance of the information gained from reading tests and the value it has for the classroom teacher.

Teachers regularly consult test scores for proper placement levels for pupils in their texts. They ask the question, "Which reading tests provide the best estimate of match between pupil and book for the purpose of instruction?" In order to assign materials which challenge the reader without discouraging him, a teacher must know a pupil's reading level. If a pupil receives instruction from materials which are too easy for him, he is not motivated or interested sufficiently to attain maximum growth. Conversely, if a pupil is instructed from books which are too difficult, he may become frustrated and disillusioned when he is unable to attain the levels of achievement set for him.

Although it is necessary that teachers determine each pupil's instructional reading level in order to provide appropriate reading materials, the actual performance of this task is difficult, if not impossible, for many average classroom teachers. More reliable and easily administered tests for determining instructional reading levels are critically needed.

STATEMENT OF THE PROBLEM

The problem was to determine the degree of agreement which exists among the grade level scores of the Reading Composite of the Science Research Associates Assessment Survey, Achievement Series, the Standard Reading Inventory, and the Word Opposites Test of the Botel Reading Inventory when they were used to identify the instructional reading levels of selected educationally disadvantaged pupils.

For each testing combination the following comparisons were made within the research sample:

(1) third grade and sixth grade,

(2) upper half and lower half for each grade level and for the grade levels combined,

(3) male and female for each grade level and for the grade levels combined,

(4) overage pupils and pupils of appropriate ages for each grade level and for the grade levels combined.

QUESTION TO BE ANSWERED

This study was concerned with the following specific question: Is there a positive correlation among the mean grade equivalent scores of the Reading Composite of the Science Research Associates Assessment Survey, Achievement Series, the Standard Reading Inventory, and the Word Opposites Test of the Botel Reading Inventory?

IMPORTANCE OF THE STUDY

Classroom teachers need instruments to aid in determining the levels at which pupils should be instructed in reading for maximum

growth to result. This study attempted to validate an instrument which was suited to determining the instructional reading levels of selected educationally disadvantaged children.

DELIMITATIONS

The study was confined to one hundred twenty-five pupils in the third and sixth grades at Bains Elementary School in West Feliciana Parish, Louisiana, who were identified as educationally disadvantaged. All pupils so designated who remained in the school for the duration of the testing period were included.

DEFINITION OF TERMS

Word Opposites Test of the Botel Reading Inventory - ten graded lists of ten words each representing samples of reading materials at levels 1, 2^1, 2^2, 3^1, 3^2, 4, 5, 6, 7-8, 9-12 with three grade scores possible: frustration level (0-60 percent); instructional level (70-80 percent); and free reading level (90-100 percent).

Coefficient of correlation - a measure of the degree of relationship between two sets of measures. A widely used measure of statistical correlation is the product-moment correlation coefficient devised by Pearson.

Educationally disadvantaged pupil - a pupil living within an area of economic deprivation as designated by the Office of Health, Education, and Welfare whose composite score on the Science Research Associates standardized achievement test indicated that he was one or more years below his actual grade placement.

Informal reading inventory - an individualized measurement instrument of reading performance, based on standard criteria, from which the subject reads, silently and orally, selected passages from a graded series of reading materials in order to determine his functional reading levels.

Instructional level - the highest reading level at which systematic instruction should be initiated. Designated as a grade equivalent, this was the level at which students were expected to make the maximal growth with teacher direction.

Science Research Associates Assessment Survey, Achievement Series - a standardized instrument designed to measure achievement in reading, language arts, and mathematics. Composite scores used in this study referred to grade equivalent designation derived from the reading, language arts, and mathematics scores. Reading composite scores referred to the grade equivalent scores from the reading subtests only.

Standard Reading Inventory - an individual informal reading inventory consisting of eleven stories for oral reading, eight stories for silent reading, and eleven word lists for measuring word pronouncement ability in isolation. Eleven basic book levels were sampled, pre-primer, primer, 1^2, 2^1, 2^2, 3^1, 3^2, 4, 5, 6, and 7. Scoring was based on oral reading errors, unaided and aided recall comprehension.

Validity - the extent to which a test measures what it is purported to measure.

PROCEDURE OF THE STUDY

The population for this study was composed of the third and sixth grade students who were designated as educationally disadvantaged on the basis of the Science Research Associates Assessment Survey, Achievement Series administered early in the 1972-73 school year in West Feliciana Parish, Louisiana. Pupils whose scores fell below the fifth percentile rank were eliminated from the study.

The Science Research Associates Assessment Survey, Achievement Series was administered by the classroom teachers with the help of the researcher. The scoring of these tests was completed by computer. Administration and scoring of the Word Opposites Test of the Botel Reading Inventory and the Standard Reading Inventory were completed by the researcher. All test scores were coded and transferred to computer cards. The Pearson product-moment method was used to calculate the correlation coefficients. The statistical findings were summarized and conclusions drawn.

ORGANIZATION OF THE STUDY

The remainder of this study was organized into four chapters. A review of related literature was summarized in Chapter 2; the experimental procedures and sources of data were described in Chapter 3, and Chapter 4 was a presentation and analysis of the data collected. Chapter 5 offered summaries, conclusions and recommendations for future study related to the information gained from this research.

Chapter 2

REVIEW OF RELATED LITERATURE

This chapter was confined to a review of literature regarding (1) the importance of determining appropriate instructional reading levels, (2) the general use of standardized test scores and informal reading inventory scores for determining appropriate instructional reading levels, (3) the use of the Standard Reading Inventory and the Botel Reading Inventory, and (4) the test performance of poor readers.

IMPORTANCE OF DETERMINING APPROPRIATE INSTRUCTIONAL READING LEVELS

The use of inappropriate materials as a major contributing cause of reading difficulty was confirmed by education authorities throughout the literature (Ephron, 1953; Lee and Lee, 1960; Harris, 1970). Cooper (1952) and others (Jones, 1948; Dunkeld, 1971) validated through research the principle that greater gains in achievement were made by pupils when reading materials were adjusted to their levels of instruction. Yet, Botel (1957) noted, "Seven to ten million pupils in our schools are reading books which are too difficult for them."

Therefore, some authorities regarded the task of selecting suitable materials at the child's instructional level for reading instruction as one of a teacher's foremost responsibilities. Harris

(1970:139) summarized this belief:

> The most important question to answer about a child's reading is: How difficult a book can this child read? On the answer to this question depends not only the classification of pupils into instructional groups but also the selection of basal readers and supplementary reading materials.

Austin and Huebner (1962:342) concurred with Harris, when they expressed two current instructional needs (1) accurate appraisal of each pupil's level of reading achievement, and (2) the use of such information as a basis for the selection of suitable reading methods and materials.

The techniques and instruments used for determining reading levels and assigning appropriate reading materials for maximum pupil growth were the subjects of numerous studies over the past forty years.

USE OF STANDARDIZED TEST SCORES AND INFORMAL READING INVENTORY SCORES TO DETERMINE INSTRUCTIONAL READING LEVELS

Standardized reading tests and informal reading inventories were identified as the two most widely used types of instruments employed to estimate reading achievement. According to Strang (1969: 132), standardized tests were administered most frequently, even while researchers continued to express differing opinions regarding the usefulness of the data for classroom teachers. The following studies compared standardized reading scores and functional reading levels as identified by informal reading inventories.

Betts (1940) reported that several standardized reading tests designed for use at the fifth grade level rated pupils from one to

four grades above their actual achievement level. Ten percent of the class tested in the Betts study did not exhibit appropriate reading behavior in first grade materials, yet some of the tests graded these pupils no lower than second, third, or fourth grade level.

Another early study was completed by Killgallon (1942). The standardized test used in his investigation placed pupils an average of one grade above their placement as determined from a reading inventory.

In his investigation of the relationship between the standardized and informal estimates of reading levels, Botel (1957:25-39) found the following percentages in grades two through six, using 1,400 pupils. In grade two, eighty-five percent of the pupils were overrated by the standardized test from one to five levels, eleven percent were rated properly, and four percent were underrated one or two levels. In grade three, eighty-six percent of the pupils were overrated by the standardized test from one to five levels, seventeen percent were rated properly, and fifteen percent were underrated from one to three levels. In the intermediate grades each rating was approximately the same; one third overrated from one to five levels, one third rated properly, and one third underrated by the standardized test.

Using only fifty-six pupils in the sixth grade, McCracken (1962: 368) conducted a similar study from which he concluded that the standardized reading scores were significantly higher than reading performances as determined by an informal reading inventory. He calculated sixty-three percent of the students would be placed at frustration reading levels if the standardized test scores were used to determine the level of instruction.

Research concerning informal reading inventories continued to concentrate on assessing the relation of informal to standardized testing procedures in determining an individual's reading level. Since 1961 fourteen studies which made such comparisons were reported. These studies were identified in Table 1.

In one of the studies, Sipay (1962) administered three well known standardized reading achievement tests and an informal reading inventory from a widely used basal reader series. His population of 202 subjects was drawn from eight fourth grade classes. For the purpose of determining the instructional reading levels from the informal reading inventory, Sipay used two sets of criteria. When the more stringent criteria were used, all three standardized tests tended to overestimate the instructional level by approximately one or more grade levels. When the more lax criteria were used, the three standardized tests overestimated the instructional levels from 0.11 to 1.02 grade levels.

Glaser (1965) added a new dimension to such studies when he selected retarded seventh grade readers and advanced third grade readers, all of whom had scored between 5.0 and 5.9 on the Gates Reading Survey. The findings indicated the instructional levels of both groups were consistently lower than the levels indicated by the standardized test scores, with a slightly larger spread for the retarded readers.

Somewhat in contrast to the conclusions in other studies, Williams (1964) found that the Metropolitan Reading Test and the Gates Reading Survey placed students relatively near their instructional levels based on informal reading inventory performance in familiar basal reader material. Davis (1965) also found evidence of

Table 1

Studies Related to Concurrent Performance on Informal Reading Inventories and Standardized Reading Tests 1962-1972

Researcher	Year	Standardized Test
Daniels	1962	Gates Advanced Primary Reading Test
Sipay	1962	California Reading Test Gates Reading Survey Metropolitan Achievement
Brown	1964	California Reading Test Metropolitan Achievement Iowa Every-Pupil Tests of Basic Skills Gates Reading Survey
McCracken	1964	Iowa Every-Pupil Tests of Basic Skills, Test A
Williams	1964	California Reading Test Gates Reading Survey Metropolitan Achievement
Davis	1965	Gates Reading Survey Stanford Achievement Test
Glaser	1965	Gates Reading Survey
Leibert	1966	Gates Advanced Primary Reading Test
Patty	1966	Gilmore Oral Reading Test Gray Oral Reading Test
Dunkeld	1971	Gates-MacGinitie Reading Test
Martin	1971	Durrell Listening Reading Series Gates-MacGinitie Reading Test
Johns	1972	Gates Mac-Ginitie Reading Tests, Survey D
Smith	1972	Durrell Listening-Reading Series Gates Mac-Ginitie Reading Test, Survey D
Wade	1972	Durrell Listening Reading Series, Advanced Level, Form D E Gates-MacGinitie Reading Test, Survey E

agreement between standardized test scores and certain informal tests, including the Temple Informal Reading Inventory and the Botel Reading Inventory, when they were compared at instructional reading levels. From his study, Davis concluded that there was insufficient evidence to recommend the substitution of standardized techniques for informal techniques of evaluation.

Differences in grade placement were reported by Leibert (1966) when he compared informal reading inventory performance and Gates Advanced Primary Reading Test scores for second grade pupils. However, he offered the suggestion that differences might have been due to the wider range of skills included in the group standardized test.

Brown (1964) found no consistent relationship between performance of fourth grade students on five standardized silent reading tests and on informal reading inventories. Patty (1966) arrived at a similar conclusion. He found it impossible to generalize whether standardized oral reading tests indicated functional reading levels as accurately as those determined by informal reading inventories. The Gilmore Oral Reading Test and the Gray Oral Reading Test were used in Patty's investigation.

Several comparison studies from the University of Northern Colorado were completed in the early 1970's. Using the same standardized test series, three researchers found continued evidence of overestimation related to mean instructional levels. At primary grade levels, Martin (1971) observed that approximately one half of the pupils were placed one-half year or more above their instructional levels by the two standardized reading tests. Neither test nor any subtest used in the study placed more than thirty-nine percent of the

pupils at their instructional reading level. At intermediate grades four, five, and six, Smith (1972) could not identify any total or subtest score from either standardized test which was adequate in establishing instructional reading levels, Overplacement ranged from one to five years. Using an eighth grade sample, Wade (1972) found overplacement to be two and one-half to three years, when using total and subtest scores of both standardized tests.

Again contrasting evidence was presented by Johns (1972) in a fourth grade classroom comparison of Gates-MacGinitie scores and performance on the Silvaroli Classroom Reading Inventory. Only four pupils achieved a Gates reading grade level more than a year above their instructional level on the Silvaroli.

Diagnostic reading authorities tended to agree that informal reading inventories represented the most useful instruments readily available to teachers for evaluating the performance of pupils to insure their proper placement in reading materials for instructional purposes (Austin and Huebner, 1962:388-343; Strang, 1969:191-212; Wilson, 1972:88-93; Zintz, 1966:26-38). The inventories described by these authorities ranged from the types of tests which teachers devised for use in specific classrooms to more standardized published inventories.

The greatest disadvantage to the use of informal reading inventories was reported to have been related to the competency of the examiner. The accuracy of the data secured depended almost entirely upon the examiner's skill in recording errors and in making judgments about reading performance. Ladd (1962) concluded that teachers in her study were inadequate in evaluating reading performance

by informal methods unless they were given intensive training. Emans (1965:258), also supported arguments that teachers were often unreliable in identifying degrees of reading performance even though they had participated in college courses related to diagnois in reading. Millsap (1963) revealed that experienced classroom teachers had difficulty in recognizing the frustration reading levels among their pupils in basal readers. One hundred twenty-three elementary teachers in his study were seventy percent correct in their judgment of the suitability of basal reader material for pupils, twenty-seven seventh and eighth grade teachers were fifty-one percent correct, and the twenty-three secondary teachers were forty-three percent correct.

Roy A. Kress, who co-authored with Majorie Seddon Johnson a detailed manual entitled Informal Reading Inventories, summarized the strengths and weaknesses of the informal reading inventory, (Johnson and Kress, 1971:90).

> The individual informal reading inventory is a clinical device. It is designed to reveal extensive information about a child's reading strengths and needs as well as to establish the levels at which he can function independently and with instruction. The results obtained from administration of such an inventory are as good as the examiner, no better. Specific criteria for the establishment of levels have been indicated. However, the power of observation and the standards of judgment of the examiner are the final determinants of the adequacy of the information gained.

Johnson (1971:34) concurred with Kress:

> The Informal Reading Inventory is undoubtedly one of the most efficient clinical devices available for evaluation of a child's performance in reading; however, for the classroom teacher, administration of individual inventories is neither a practical nor a desirable procedure.

Reviewing the findings of the studies cited in Table 1, and the work of other reading authorities, several generalizations were made. First, the use of standardized reading test scores for the

purpose of selecting suitable reading materials for instruction was not warranted. Standardized reading tests were valid for ranking students (Farr, 1969:213) and they were adequate screening devices for those pupils in need of more extensive evaluation, but they could not be used for accurately determining instructional reading levels. Secondly, informal reading inventories based on classroom instructional reading materials provided the most valid estimate for identifying functional reading levels. Third, comparisons between informal reading inventory performance and standardized test scores were dependent on: (1) the standardized test used, (2) the reading materials used to construct the inventory, (3) the criteria used to evaluate performance, and (4) the competency of the examiner in recording errors and in making judgments on performance.

THE STANDARD READING INVENTORY AND THE BOTEL READING INVENTORY

Validity and reliablility studies of the Standard Reading Inventory were initiated by McCracken (1964). He wrote test paragraphs which he considered to have high content validity and corroborated this validity statistically by testing 664 children in grades one through six and by the subjective evaluations of twenty-five reading experts. The rank correlations among experts' ratings and the readability levels of the selections was 0.994 for Form A and 0.993 for Form B. Two studies of concurrent validity were made (McCracken, 1966:42). When the instructional reading level of the Standard Reading Inventory and the California Reading Test were compared for seventy-nine children completing second grade, a correlation of 0.87 was calculated.

When the comprehension and vocabulary reading scores of the Stanford Achievement Test and the Standard Reading Inventory's instructional reading level and the vocabulary in isolation scores were compared for seventy-seven children completing third grade, the correlations were 0.77 between the Stanford reading comprehension and the Standard instructional reading level, and 0.88 between the vocabulary measures.

In 1970 McCracken and Mullen reported an analysis of data derived from scores on the Standard Reading Inventory, the Stanford Achievement Test, the California Test of Mental Maturity, and the Botel Reading Inventory for 140 pupils, grades one through six. All correlations between the Standard Reading Inventory and the Botel Reading Inventory were signficant at the .01 level of confidence and the study offered strong evidence that these two instruments measured the same skill or skills. Since each test was designed to identify the readability level at which a child should be instructed, the correlations supported the concept that instructional reading level was measured by these tests.

The Botel Reading Inventory was subjected to various studies of validity related to instructional reading level scores. In 1967 the Botel Reading Inventory and the grade equivalent scores of several standardized tests were compared with previously established instructional reading levels of 541 elementary pupils, grades two through six. In all grades with the exception of grade three, comparisons showed the Botel scores related more closely to instructional reading levels than the silent reading test scores of the standardized tests (Botel, 1969:721-727). Data shown in Table 2 compared the

previously identified instructional reading levels with the Botel Reading Inventory, Form B, and with the standardized reading tests.

Botel and others (1970:85-103) used the Standard Reading Inventory, Diagnostic Reading Scales, and the Botel Reading Inventory in a study to determine pupils' instructional reading levels and to determine the intercorrelations among the reading tests and readability formulas. The means for the Standard and the Botel were virtually the same magnitude and the Word Opposites section of the Botel consistently placed pupils at their instructional levels when correlations of readability were made.

As part of her research, Sister M. Catherine Davis (1965) compared the instructional reading levels of the Temple Informal Reading Inventory with the instructional levels determined by the Word Opposites Test of the Botel Reading Inventory. The correlations ranged from 0.46 to 0.70.

Various studies related to validity and reliability of the Standard Reading Inventory and the Botel Reading Inventory were located. Comparisons to other tests and comparisons between the two tests seemed to have established validity and reliability of both instruments for the purpose of identifying instructional reading levels.

THE TEST PERFORMANCE OF POOR READERS

Researchers consistently reported difficulties in assessing functional reading levels of poor readers. Betts (1940) compared the scores of fifth graders from five silent reading tests to levels of

Table 2

Correlations between Instructional Reading Levels and (1) Botel Reading Inventory, Form B; (2) Standardized Reading Tests

Grade	N	Botel, Form B	Standardized Reading Tests
2	101	.951	.922
3	127	.858	.807
4	97	.840	.657
5	111	.859	.633
6	103	.728	.510

performance on an informal reading inventory. One of his major conclusions was that none of the standardized reading tests used provided an adequate index to the levels at which reading instruction should be initiated for low achievers. The Killgallon study (1942) revealed that the standardized test used did not discriminate well among the lower extremes of the distribution.

Chall (1958:133-138) and Harris (1970:164) cautioned teachers about the reliability of standardized test scores for poor readers. Harris cited two conditions which could greatly affect the scores:

> Children whose reading skills are poor tend to guess more than good readers do, and their scores, based less on reading and more on guessing, may at times overestimate the instructional level by a year or more. On the other hand, when a child misses many easy items but gets harder ones correct, or when he gets upset and stops before reaching his frustration level, the score may underestimate his reading ability. Standardized tests are, then, less accurate for poor readers than for good readers.

Bond and Tinker (1967:195) expressed the idea that retarded readers exhibited more variability in reading abilities than did normal readers. Williams (1964) found, at the instructional reading level, a wider variation of scores for poor readers than for normal readers when he compared scores from standardized tests to performance on an informal reading inventory.

SUMMARY

Various means of assessing reading competency for the purpose of identifying appropriate reading levels were explored and questioned in the literature. Standardized test scores and individual informal

reading inventory evaluations were compared to determine the strengths of their relationships.

Standardized test scores were reported generally unreliable for determining instructional levels, particularly with poor readers. The evaluation of performance on informal reading inventories for purposes of pupil placement in instructional materials was widely accepted in practice. Confidence in the use of the informal reading inventory was expressed by Strang (1969:192):

> The individual reading inventory combines the diagnostic values of oral reading and observation... The informal reading inventory is specifically useful in the appraisal of proficiency in basic vocabulary, word recognition, and comprehension of paragraphs of different levels of difficulty. Every reading teacher should be prepared to use it.

The effectiveness of the Standard Reading Inventory and the Botel Reading Inventory for identifying readability levels at which a child should be instructed was validated in several studies. No such studies involving educationally disadvantaged elementary pupils were identified.

Chapter 3

PROCEDURE

BACKGROUND

Bains Elementary School, located four miles from St. Francisville, Louisiana, (1972 population 1,806), in rural West Feliciana Parish, was the setting for this research study. The school, encompassing grades one through six, had a 1972-73 enrollment of 882 pupils of which 185 or 21 percent were white and 697 or 79 percent were black. The attendance district for Bains Elementary School included the entire area of West Feliciana Parish (1972 population 11,527) with the exception of the northwest corner which was zoned for another school.

Statistics compiled by local school authorities in 1973 showed that 69.37 percent of children attending Bains Elementary School were from families of low income. The Bains Elementary School was designated as a Title I school. The total per pupil expenditure in 1973 averaged $1,000. Title I funds had been utilized to equip and maintain, on a regular basis, two Educational Development Laboratories (EDL) reading labs and to employ the services of a reading consultant who worked directly with classroom teachers and pupils.

It was noted that standardized testing combined with informal testing in the area of reading had been a regular part of the instructional program at Bains Elementary School for the past three school years. In 1970-71, the reading consultant administered informal reading inventories to determine instructional levels in grades one

through four; and two high school teachers, who had received diagnostic training, tested pupils in grades five and six. This researcher administered informal reading inventories in grades four and five in 1971-72 and the reading consultant continued to test numerous pupils at all grade levels upon the request of teachers. Thus, almost every pupil involved in the 1972-73 testing for purposes of this study had previous experience in taking standardized tests and informal reading inventories.

METHOD OF SAMPLE SELECTION

All third grade and sixth grade pupils in West Feliciana Parish designated as educationally deprived on the bases of their residence in an economically deprived area and their low composite scores on a standardized test administered in the 1972-73 school year were eligible for participation in the study. At Bains Elementary School one hundred thirty pupils who scored one grade level below their actual grade placement, and at or above the fifth percentile on the Science Research Associates Assessment Survey, Achievement Series were identified. One hundred twenty-five of these pupils remained in the school for the duration of the testing period. In Table 3 this population was further identified by race and sex.

Table 3

Sample Population by
Grade, Age, and Sex

Race	Sex	Third Grade	Sixth Grade	Total
Black	Male	32	27	59
White	Male	1	6	7
Black	Female	17	37	54
White	Female	1	4	5
Grade Total		51	74	125

ADMINISTRATION OF THE TESTS

On September 29, 1972, the third grade teachers administered Form E, Primary II of the Science Research Associates Assessment Survey, Achievement Series to all the pupils in attendance in their classrooms. On the same day the sixth grade teachers administered Form F/Blue Level of the Science Research Associates Assessment Survey, Achievement Series. All testing was done in the regular classroom setting in the morning session. Each grade level began the test battery with the reading subtests. Consultation with teachers was held before and after the testing periods on September 29. The completed test booklets were mailed to Science Research Associates for machine scoring.

The third grade test scores were received by the West Feliciana Parish School Board on November 14, 1972. The sixth grade test scores were received the first week in January, 1973.

Each Standard Reading Inventory, Form A, was administered by the researcher in a room where only the examinee and the examiner were present. Administration time per test averaged about thirty minutes. Most tests were given the first half of the school day, exclusive of physical education, art, and recess periods. No attempt was made to test the hour before afternoon dismissal or on any day immediately preceding or following holidays. Third grade testing began November 14, 1972, and was completed before the Christmas holidays. During this period the school had five days of vacation for Thanksgiving. Sixth grade testing began in January, 1973, and terminated in February, 1973.

Only the Word Opposites Test of the Botel Reading Inventory, Form B, was given. This was a group silent reading test with no time limit. The time utilized for the Word Opposites Test was approximately fifteen minutes. In each of the ten classrooms the researcher gave the directions and supervised the class as they marked their papers. In late February all third grade classes took the test during one morning and all sixth grade classes took the test during the following morning. Absentees were tested in grade level groups by the researcher when they returned to school.

TREATMENT OF THE DATA

The Science Research Associates Assessment Survey, designated

SRA in the remainder of the study, was machine scored and the scoring data were returned in tabular form. All Botel Reading Inventory and Standard Reading Inventory tests were scored by the researcher. Instructional levels were assigned in accordance with directions in the respective manuals. The researcher identified minimum and maximum instructional reading levels from the Standard Reading Inventory. A mean score, subsequently referred to as SRI-A for the average, was calculated by computer.

For the purpose of assigning upper and lower levels in each grade, the median was determined for the SRA scores. Any third grade child born in 1964 was considered the appropriate age for that grade. The year 1961 was the appropriate birth year for the sixth grade. Any third grade child born prior to 1964 was considered overage. Any sixth grade child born prior to 1961 was considered overage.

All data were converted to IBM code sheets by the researcher and transferred to computer cards by programmers in the Department of Experimental Statistics at Louisiana State University. The calculations were made by computer, using the Pearson product-moment method of correlation, and were reported in print-out format.

Chapter 4

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter was to report and analyze all data pertaining to the relationships among the three tests administered to the sample. Since these relationships were linear, meaning they could be described by a straight line, the correlations among the test scores were expressed by the "product-moment" coefficient of correlation (Garrett, 1953:122).

Product-moment coefficients of correlation were calculated for the third and sixth grades combined, the third grade alone, the sixth grade alone, and for sex, age, and level. Age-sex and level-sex combinations were also computed. Data were presented in Tables 4-32.

An effort was made to determine if the correlation coefficients were attributed to chance. Therefore, the coefficients were submitted to tests of significance at the .05 and .01 levels of confidence. Garrett (1953:187) explained:

> We can expect to be wrong five percent of the time if we take the .05 level and one percent of the time if we take the .01 level. These levels .05 and .01 reflect degrees of assurance, therefore, the .01 level deserving greater respect than the .05 level.

The data presented in Table 4 indicated that there were positive correlations, significant at the .01 level of confidence, between the SRA and the SRI-A, the SRA and the Botel, and the SRI-A and the Botel for grades three and six combined.

Table 4

Correlation Coefficients Among SRA, SRI-A, and Botel for Grades Three and Six

	SRI-A	Botel
SRA	.843**	.822**
SRI-A		.916**

**Significant at the .01 level of confidence
N = 125

In Table 5 the data revealed a negative correlation between the SRA and the SRI-A, a negative correlation between the SRA and the Botel, and a positive correlation, significant at the .01 level of confidence, between the SRI-A and Botel for grade three.

At grade six the data presented in Table 6 showed a positive, significant correlation at the .01 level of confidence between the SRA and the SRI-A, the SRA and the Botel, and the SRI-A and the Botel.

The results of data shown in Table 7 disclosed a negative correlation for SRA and SRI-A and a negative correlation for the SRA and the Botel. A positive correlation, significant at the .01 level of confidence, was found for the SRI-A and the Botel when third grade females were sampled.

Correlation data for third grade males were reported in Table 8. The SRA and the SRI-A coefficient was negative. The SRA and the Botel coefficient was positive, but it did not meet the test of significance at the .05 or .01 level of confidence. The SRI-A and

Table 5

Correlation Coefficients Among SRA, SRI-A, and Botel at Grade Three

	SRI-A	Botel
SRA	-.080	-.134
SRI-A		.761**

**Significant at the .01 level of confidence
N = 51

Table 6

Correlation Coefficients Among SRA, SRI-A, and Botel at Grade Six

	SRI-A	Botel
SRA	.549**	.486**
SRI-A		.690**

**Significant at the .01 level of confidence
N = 74

Table 7

Correlation Coefficients Among SRA, SRI-A, and Botel for Females in Grade Three

	SRI-A	Botel
SRA	-.076	-.322
SRI-A		.813**

**Significant at the .01 level of confidence
N = 18

Table 8

Correlation Coefficients Among SRA, SRI-A, and Botel for Males in Grade Three

	SRI-A	Botel
SRA	-0.58	.025
SRI-A		.641**

**Significant at the .01 level of confidence
N = 33

the Botel coefficient was positive and significant at the .01 level of confidence.

For grade six females the results of correlation data were positive and significant at the .01 level of confidence for SRA and SRI-A; positive and not significant for the SRA and Botel; and positive and significant at the .01 level of confidence for the SRI-A and Botel. Analysis of the data was shown in Table 9.

As shown by the data reported in Table 10, the correlations for sixth grade males were all positive and significant at the .01 level of confidence.

An analysis of the data in Table 11 indicated positive correlations, all significant at the .01 level of confidence, for females in the sample.

Positive correlations, significant at the .01 level of confidence, for males in the sample were disclosed from data in Table 12.

In Table 13, the data for pupils who were the appropriate age for grade three indicated negative correlations for the SRA and the SRI-A and, also, for the SRA and the Botel. For the SRI-A and Botel, the correlation was positive and significant at the .01 level of confidence.

Data presented in Table 14 also showed negative correlations for the SRA and the SRI-A and the SRA and the Botel with a positive correlation, significant at the .01 level of confidence, for SRI-A and Botel. These data were for overage third grade pupils.

A study of the data in Table 15 revealed positive correlations, significant at the .01 level of confidence, for each test comparison when pupils who were the appropriate age for grade six were sampled.

Table 9

Correlation Coefficients Among SRA, SRI-A, and Botel for Females in Grade Six

	SRI-A	Botel
SRA	.494**	.258
SRI-A		.374**

**Significant at the .01 level of confidence
N = 41

Table 10

Correlation Coefficients Among SRA, SRI-A, and Botel for Males in Grade Six

	SRI-A	Botel
SRA	.650**	.689**
SRI-A		.834**

**Significant at the .01 level of confidence
N = 33

Table 11

Correlation Coefficients Among SRA, SRI-A, and Botel for Females in Grades Three and Six

	SRI-A	Botel
SRA	.830**	.726**
SRI-A		.847**

**Significant at the .01 level of confidence
N = 59

Table 12

Correlation Coefficients Among SRA, SRI-A, and Botel for Males in Grades Three and Six

	SRI-A	Botel
SRA	.860**	.888**
SRI-A		.946**

**Significant at the .01 level of confidence
N = 66

Table 13

Correlation Coefficients Among SRA, SRI-A, and Botel for Pupils of Appropriate Ages for Grade Three[a]

	SRI-A	Botel
SRA	-.144	-.263
SRI-A		.798**

[a] Born in 1964
**Significant at the .01 level of confidence
N = 30

Table 14

Correlation Coefficients Among SRA, SRI-A, and Botel for Overage Pupils in Grade Three[a]

	SRI-A	Botel
SRA	-.067	-.011
SRI-A		.692**

[a] Born earlier than 1964
**Signficant at the .01 level of confidence
N = 21

For overage sixth grade pupils represented in Table 16, the correlation for SRA and SRI-A was positive and significant at the .05 level of confidence, for SRA and Botel the correlation was positive, yet did not meet the test of significance, and for SRI-A and Botel the correlation was positive and significant at the .01 level of confidence.

Correlations for females who were of the appropriate ages for their respective third or sixth grades were presented in Table 17. All comparisons were positive and significant at the .01 level of confidence.

Corresponding correlations for males who were of the appropriate ages were also positive and significant at the .01 level of confidence. These data were shown in Table 18.

Data for pupils of appropriate ages for grades three and six showed positive and significant correlations at the .01 level of confidence. As presented in Table 19, these coefficients ranged from 0.823 to 0.902.

Data for overage females presented in Table 20 revealed positive coefficients, significant at the .01 level of confidence, for each correlation: SRA and SRI-A, SRA and Botel, and SRI-A and Botel.

The data for overage males reported in Table 21, likewise, indicated positive correlations, which met the test for significance at the .01 level of confidence. This was true for all tests.

Data summarized in Table 22 showed positive correlations, significant at the .01 level of confidence, for overage pupils in the sample.

Table 15

Correlation Coefficients Among SRA, SRI-A, and Botel for Pupils of Appropriate Ages for Grade Six[a]

	SRI-A	Botel
SRA	.592**	.482**
SRI-A		.574**

[a]Born in 1961
**Significant at the .01 level of confidence
N = 52

Table 16

Correlation Coefficients Among SRA, SRI-A, and Botel for Overage Pupils in Grade Six[a]

	SRI-A	Botel
SRA	.411*	.391
SRI-A		.841**

[a]Born earlier than 1961
*Significant at the .05 level of confidence
**Significant at the .01 level of confidence
N = 22

Table 17

Correlation Coefficients Among SRA, SRI-A, and Botel for Females of Appropriate Ages for Grades Three and Six

	SRI-A	Botel
SRA	.811**	.696**
SRI-A		.796**

**Significant at the .01 level of confidence
N = 41

Table 18

Correlation Coefficients Among SRA, SRI-A, and Botel for Males of Appropriate Ages for Grades Three and Six

	SRI-A	Botel
SRA	.906**	.910**
SRI-A		.948**

**Significant at the .01 level of confidence
N = 41

Table 19

Correlation Coefficients Among SRA, SRI-A, and Botel for Pupils of Appropriate Ages for Grades Three and Six

	SRI-A	Botel
SRA	.857**	.823**
SRI-A		.902**

**Significant at the .01 level of confidence
N = 82

Table 20

Correlation Coefficients Among SRA, SRI-A, and Botel for Overage Females in Grades Three and Six

	SRI-A	Botel
SRA	.857**	.746**
SRI-A		.920**

**Significant at the .01 level of confidence
N = 18

Table 21

Correlation Coefficients Among SRA, SRI-A, and Botel for Overage Males in Grades Three and Six

	SRI-A	Botel
SRA	.732**	.827**
SRI-A		.938**

**Significant at the .01 level of confidence
N = 25

Table 22

Correlation Coefficients Among SRA, SRI-A, and Botel for Overage Pupils in Grades Three and Six

	SRI-A	Botel
SRA	.792**	.794**
SRI-A		.934**

**Significant at the .01 level of confidence
N = 43

Data given in Table 23 showed positive correlations which did not meet the test of significance at the .05 or .01 level of confidence for SRA and SRI-A and for SRA and Botel. The correlation for SRI-A and Botel was positive and significant at the .01 level of confidence. These analyses were made for third grade pupils whose SRA scores fell below the median score in the third grade sample.

For the third grade pupils whose SRA scores were above the median score in the third grade sample, the data were presented in Table 24. The SRA and the SRI-A, as well as the SRA and Botel correlations, were negative, while the SRI-A and the Botel correlations were positive and significant at the .01 level of confidence.

The data recorded in Table 25 were positive, but the coefficients did not meet the test of significance at the .05 or .01 level of confidence for the SRA and the SRI-A or for the SRA and the Botel. The correlation for the SRI-A and the Botel was positive and met the test of significance at the .01 level of confidence. These coefficients were for sixth grade pupils whose SRA scores fell below the median score for the sixth grade pupils sampled.

Data indicated in Table 26 represented the pupils whose SRA scores were above the median score for the sixth grade pupils sampled. The correlation for SRA and SRI-A scores was positive and significant at the .05 level of confidence. The correlation for SRA and Botel was positive, but it did not meet the test of significiance at the .05 or .01 level of confidence. The SRI-A and the Botel correlation was positive and significant at the .01 level of confidence.

A study of the data in Table 27 disclosed a positive correlation,

Table 23

Correlation Coefficients Among SRA, SRI-A, and Botel for Lower Level Pupils in Grade Three[a]

	SRI-A	Botel
SRA	.311	.239
SRI-A		.743**

[a]SRA < 2.0
**Significant at the .01 level of confidence
N = 29

Table 24

Correlation Coefficients Among SRA, SRI-A, and Botel for Upper Level Pupils in Grade Three[a]

	SRI-A	Botel
SRA	-.310	-.247
SRI-A		.780**

[a]SRA > 2.0
**Significant at the .01 level of confidence
N = 22

Table 25

Correlation Coefficients Among SRA, SRI-A, and Botel for Lower Level Pupils in Grade Six[a]

	SRI-A	Botel
SRA	.097	.140
SRI-A		.580**

[a]SRA < 4.0
**Significant at the .01 level of confidence
N = 38

Table 26

Correlation Coefficients Among SRA, SRI-A, and Botel for Upper Level Pupils in Grade Six[a]

	SRI-A	Botel
SRA	.339*	.123
SRI-A		.615**

[a]SRA > 4.0
*Significant at the .05 level of confidence
**Significant at the .01 level of confidence
N = 36

significant at the .01 level of confidence, for all tests given to females whose SRA scores were below the median score (2.0) at third grade level or below the mean score (4.0) at the sixth grade level.

The data for males whose SRA scores fell below the respective medians for their grade in the sample were also positive and significant at the .01 level of confidence. These correlations were presented in Table 28.

A summary of data related to pupils who scored below the median SRA score for the sample at their grade level indicated positive correlations which met the test of significance at the .01 level of confidence. These data were presented in Table 29.

Table 30 showed data for females who scored above the median scores of the SRA tests given at their grade level. Correlations were positive and met the test of significance at the .01 level of confidence.

The data given in Table 31, also, revealed positive correlations, significant at the .01 level of confidence, for males who scored above the SRA median scores at their grade level.

A study of the data in Table 32 showed a positive, significant correlation at the .01 level of confidence, for the SRA and SRI-A, the SRA and Botel, and SRI-A and Botel for pupils who scored above the median SRA scores at their grade level.

Table 27

Correlations Coefficients Among SRA, SRI-A, and Botel for Lower Level Females in Grades Three and Six[a]

	SRI-A	Botel
SRA	.807**	.807**
SRI-A		.793**

[a]Lower level refers to SRA scores below the median of the sample at each grade level.
**Significant at the .01 level of confidence
N = 32

Table 28

Correlation Coefficients Among SRA, SRI-A, and Botel for Lower Level Males in Grades Three and Six[a]

	SRI-A	Botel
SRA	.754**	.835**
SRI-A		.936**

[a]Lower level refers to SRA scores below the median of the sample at each grade level.
**Significant at the .01 level of confidence
N = 35

Table 29

Correlation Coefficients Among SRA, SRI-A, and Botel for Lower Level Pupils in Grades Three and Six[a]

	SRI-A	Botel
SRA	.781**	.818**
SRI-A		.879**

[a]Lower level refers to SRA scores below the median scores of the sample at each grade level.
**Significant at the .01 level of confidence
N = 67

Table 30

Correlation Coefficients Among SRA, SRI-A, and Botel for Upper Level Females in Grades Three and Six[a]

	SRI-A	Botel
SRA	.887**	.736**
SRI-A		.890**

[a]Upper level refers to SRA scores above the median scores of the sample at each grade level.
**Significant at the .01 level of confidence
N = 27

Table 31

Correlation Coefficients Among SRA, SRI-A, and Botel for Upper Level Males in Grades Three and Six[a]

	SRI-A	Botel
SRA	.962**	.948**
SRI-A		.951**

[a]Upper level refers to SRA scores above the median scores of the sample at each level.
**Significant at the .01 level of confidence
N = 31

Table 32

Correlation Coefficients Among SRA, SRI-A, and Botel for Upper Level Pupils in Grades Three and Six[a]

	SRI-A	Botel
SRA	.922**	.867**
SRI-A		.934**

[a]Upper level refers to SRA scores above the median scores of the sample at each grade level.
**Significant at the .01 level of confidence
N = 58

A resume of the data presented in Tables 4-32 revealed the following indications of agreement among the test scores:

1. All correlation coefficients for the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory were positive and significant at the .01 level of confidence. The overall correlation coefficient was 0.916 and the range was 0.374 to 0.951.

2. The Science Research Associates standardized reading scores and the Standard Reading Inventory scores yielded correlations ranging from -0.310 to 0.962. The 0.962 correlation met the test of significance at the .01 level of confidence. The overall correlation for grades three and six was 0.843. The 0.843 correlation was also significant at the .01 level of confidence.

3. The overall correlation for the Science Research Associates reading scores and the Word Opposites Test of the Botel Reading Inventory was 0.822, significant at the .01 level of confidence. The correlations ranged from -.322 to 0.948. The 0.948 correlation was significant at the .01 level of confidence.

4. Correlations made for third grade were generally the lowest. (Tables 5, 7, 8, 13, 14, 23, and 24)

5. The highest correlations for the three combinations of tests were for males whose reading test scores were above the SRA median scores of their respective grade level. (Table 31)

6. Correlations for males were generally higher than those for females. This pattern was consistent through age-sex and level-sex combinations. (Tables 7, 8, 9, 10, 11, 12, 17, 18, 21, 22, 27, 28, 31, and 32)

7. Neither correlations for overage pupils nor for pupils of appropriate ages were consistently high or low. The widest range of age correlations occurred at the six grade level. (Tables 13, 14, 15, 17, 18, 19, 20, and 21)

8. Correlations for scores which were above the SRA median scores for the sample were generally higher than correlations for scores which were below the SRA median. An exception was noted at the third grade level. (Tables 23, 24, 25, 26, 27, 28, 29, 30, 31, and 32)

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to investigate the usefulness of the Word Opposites Test of the Botel Reading Inventory in determining instructional reading levels. An educationally disadvantaged population of third and sixth grade students comprised the sample. Each child in the sample took three tests: the Science Research Associates Assessment Survey, Achievement Series, the Standard Reading Inventory, and the Word Opposites Test of the Botel Reading Inventory. The Science Research Associates Assessment Survey, Achievement Series was a silent standardized test battery given to the entire class at one time by the classroom teacher. The Standard Reading Inventory was an individual test of oral and silent reading. A trained administrator tested each pupil for approximately thirty minutes. An advantage of the inventory was the immediate determination of reading levels. The Word Opposites Test of the Botel Reading Inventory was a silent classroom test which averaged fifteen minutes administration time. The test could be administered easily and interpreted by the classroom teacher.

The results of these tests were submitted to correlation analyses to determine the degree of agreement which existed among the scores. The Word Opposites Test of the Botel Reading Inventory

was compared to the Standard Reading Inventory, a test previously validated as an effective measure of instructional reading levels. The Science Research Associates Assessment Survey, Achievement Series was also compared to the Standard Reading Inventory.

For each test comparison, the factors of grade, age, sex, and level were introduced and analyzed. Combinations of grades, ages, sexes, and levels were also used for testing the strengths of the relationships.

CONCLUSIONS

From a consideration of the data compiled within the limitations of this study, the following conclusions appeared warranted:

1. There was a positive correlation, which was significant at the .01-level of confidence, for the Science Research Associates Assessment Survey, Achievement Series and Standard Reading Inventory (.843), the Science Research Associates Assessment Survey, Achievement Series and Word Opposites Test of the Botel Reading Inventory (.822), and the Standard Reading Inventory and Word Opposites Test of the Botel Reading Inventory (.916) when the total sample was used.

2. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.080) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (-.134). The Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory correlation was positive (.761) and significant at the .01 level of confidence for the third grade.

3. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.549), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.486), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.690) for the sixth grade.

4. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.310), and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (-.247) for the upper level, third grade. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.780) and significant at the .01 level of confidence.

5. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.311) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.239) for the lower level, third grade. Neither correlation met the test of significance. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.743) and significant at the .01 level of confidence.

6. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard

Reading Inventory (.339), significant at the .05 level of confidence, for the upper level, sixth grade. The correlation for Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory was positive (.123) and did not meet the test of significance at the .05 or .01 level of confidence. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.615) and significant at the .01 level of confidence.

7. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and Standard Reading Inventory (.097) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.140) for the lower level, sixth grade. Neither correlation met the test of significance. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.580) and significant at the .01 level of confidence.

8. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.922), the Science Research Associates Assessment, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.867), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.934) for the upper level, third and sixth grades combined. All three correlations were significant at the .01 level of confidence.

9. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard

Reading Inventory (.781), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.818), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.879) for the lower level, third and sixth grades combined. All three correlations were significant at the .01 level of confidence.

10. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.076) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (-.322) for females, grade three. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.813) and significant at the .01 level of confidence.

11. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.058) for males, third grade. The correlation for the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory was positive (.025) and did not meet the test of significance at the .05 or .01 level of confidence. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.641) and significant at the .01 level of confidence.

12. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.494), significant at the .01 level of confidence,

for females, sixth grade. The correlation for Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory was positive (.258) and did not meet the test of significance at the .05 or .01 level of confidence. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.374) and significant at the .01 level of confidence.

13. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.650), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.689), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.834) for males, sixth grade. All correlations were significant at the .01 level of confidence.

14. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.830), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.726), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.847) for females, third and sixth grades combined. All correlations were significant at the .01 level of confidence.

15. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.860), the Science Research Associates Assessment

Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.888), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.946) for males, third and sixth grades combined. All correlations were significant at the .01 level of confidence.

16. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.144) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (-.263) for pupils of appropriate ages in third grade. The correlation for Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.798) and significant at the .01 level of confidence.

17. There was a negative correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (-.067) and the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (-.011) for overage pupils in third grade. The correlation for the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.692) and significant at the .01 level of confidence.

18. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.592), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.482), and the Standard Reading Inventory and the

Word Opposites Test of the Botel Reading Inventory (.574) for pupils of appropriate ages in sixth grade. All correlations were significant at the .01 level of confidence.

19. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.411), significant at the .05 level of confidence, and a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.391), which did not meet the test of significance at the .05 or .01 level of confidence for overage pupils in sixth grade. The correlation for the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory was positive (.841) and significant at the .01 level of confidence.

20. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.792), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.794), and the Standard Reading Inventory and the Word Opposites Test of the Botel Reading Inventory (.934) for overage pupils, third and sixth grades combined. All correlations were significant at the .01 level of confidence.

21. There was a positive correlation for the Science Research Associates Assessment Survey, Achievement Series and the Standard Reading Inventory (.857), the Science Research Associates Assessment Survey, Achievement Series and the Word Opposites Test of the Botel Reading Inventory (.823), and the Standard Reading Inventory and the

Word Opposites Test of the Botel Reading Inventory (.902) for pupils of appropriate ages in grades three and six combined. All correlations were significant at the .01 level of confidence.

Within this sample of educationally disadvantaged elementary pupils, the Word Opposites Test of the Botel Reading Inventory appeared to be a valid instrument for identifying instructional reading levels, particularly with upper elementary pupils. Slightly higher indications of test agreements were noted for boys and for pupils who were not placed in the lowest extreme of their classes on the basis of standardized test scores in reading.

RECOMMENDATIONS

1. Follow-up studies should be made to refine the use of measurement instruments to identify evidence of growth made in reading skills by educationally disadvantaged pupils.

2. Studies should be continued toward the identification of additional measurement instruments particularly useful with the lowest extremes of educationally disadvantaged pupils.

3. Further studies should be made to determine the value of the Science Research Associates Assessment Survey, Achievement Series scores and the instructional reading levels identified by the Word Opposites Test of the Botel Reading Inventory as predictive measures of instructional reading levels.

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APPENDIX A

August 28, 1972

Mr. Wendell Hall, Superintendent
West Feliciana Parish School Board
P. O. Drawer B
St. Francisville, LA 70775

Dear Mr. Hall:

The purpose of this letter is to request permission to conduct a reading research project in the Title I school, Bains Elementary, located in West Feliciana Parish. This research will be for partial fulfillment of the requirements for my Ph.D. degree at Louisiana State University.

I will be the only person, who is not a regular classroom teacher at Bains Elementary School, involved in pupil contact. Basic procedures in this project will be: (1) utilization of standardized test results, (2) individual administration of informal reading inventories by the researcher, and (3) administration of short classroom tests by the researcher. The test scores will be coded, without reference to pupil names, and coefficients of correlation will be calculated to determine the degree of agreement among the three sets of test scores. The purpose of these procedures is to study the use of the Botel Word Opposites Test to identify the instructional reading levels of a sample population of educationally disadvantaged elementary pupils.

The expenses for purchases of the informal reading inventories and the Botel Word Opposites Test will be assumed by the researcher.

I will be most willing to share the testing information with teachers and supervisory personnel at any time.

Thank you for consideration in this matter.

Sincerely,

(Mrs.) Patsy H. Perritt

APPENDIX B

September 5, 1972

Mrs. Patsy H. Perritt
815 West Grant Street
Baton Rouge, LA 70802

Dear Mrs. Perritt:

After consultation with the principal of Bains Elementary School and the parish elementary supervisor, we would like to offer our support and cooperation concerning your proposed reading research study.

We are pleased to have you continue diagnostic reading testing in our parish and sincerely hope that your research will help to improve the quality of testing information for disadvantaged pupils.

Sincerely,

Wendell H. Hall
Superintendent
West Feliciana Parish School Board

APPENDIX C

PARTICIPATING CLASSES AT BAINS ELEMENTARY SCHOOL

Third Grade	Sixth Grade
Mrs. Janie Campbell	Mrs. Connie Chapman
Mrs. Mildred Hogans	Mr. Gary Daquilla
Mrs. Juanita Matthews	Mr. Jessie Perkins
Mrs. Edine Seal	Mrs. Gertrude Romsey
Mrs. Nerea Sweeney	Mrs. Dorothy Temple

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University Microfilms.

VITA

Patsy Elaine Hagood Perritt was born in Shreveport, Louisiana on February 3, 1943. She attended elementary and secondary schools in that city and graduated from C. E. Byrd High School in 1961. In 1965 she received a Bachelor of Arts degree and a Master of Arts degree from Louisiana Polytechnic University.

Her teaching career began in September of 1965 as a fourth grade teacher at Brookstown Elementary School in Baton Rouge, Louisiana. After three years of public school teaching, she entered Louisiana State University and began college work in the area of reading and library science. From 1968 to the present time she has been employed by Louisiana State University in various capacities. She instructed and acted as librarian for summer programs in reading from 1968-1971. She taught courses in children's literature in the School of Library Science and courses in school libraries in the Department of Education. In 1971 she received a Master of Science degree in the field of library science from Louisiana State University.

She is married to Ronald Quentin Perritt.

EXAMINATION AND THESIS REPORT

Candidate: Patsy Hagood Perritt

Major Field: Education

Title of Thesis: A STUDY OF THE USE OF THE BOTEL WORD OPPOSITES TEST TO DETERMINE THE INSTRUCTIONAL READING LEVELS OF SELECTED EDUCATIONALLY DISADVANTAGED ELEMENTARY PUPILS.

Approved:

Doris Conway
Major Professor and Chairman

James D. Traynham
Dean of the Graduate School

EXAMINING COMMITTEE:

Jean Adams

Jesse J. Parker

Eric L. Thurston

Helen Corbston

Donald D. Fos

Date of Examination:

July 20, 1973